

## **Are Natural History Museums Telling the Right Story?**

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# Are Natural History Museums Telling the Right Story?

WILLIAM D. NEWMARK AND ERIC A. RICKART

**N**atural history museums are among the most important public institutions for educating the layperson about natural history, ecology, evolution, and the environment. Throughout the United States and other industrialized nations, particularly in urban centers, they represent the most important link between the scientific community as a whole and the general public.

Unfortunately, most natural history museums have largely failed in educating the public about the seriousness of global environmental change, the central role of humans as the cause of these changes, and the potential for human agency to reverse current trends. Most museums have only tangentially addressed the global environmental crisis in their interpretive programs, although exhibits such as the Hall of Biodiversity at the American Museum of Natural History are an important exception. However, as far as we are aware, global environmental change has not been integrated as a central, overarching theme in the interpretive program of any major natural history institution.

We find this omission extremely troubling, given current rates of species extinction, loss of natural habitats, and global climatic change. Furthermore, natural history museums are eminently suited to address these and related topics. Indeed, museum collections are the most important sources of archival information on biological and cultural diversity, and museum-based scientists, as a group, have nearly unparalleled knowledge and firsthand experience documenting past as well as present changes in the distribution and abundance of diversity.

The failure of natural history museums to centrally address global environmental change in interpretive programs is probably a result of several factors. First, the redesign of exhibits and other inter-

pretive programs is both costly and time consuming, and the wholesale revamping of exhibits is certainly beyond the financial scope of most institutions. Second, most permanent museum exhibits were designed when the scientific community and the general public were less aware of the extent and severity of global environmental change. Third, global environmental change has only recently become a research focus for many museum-based scientists. And fourth, natural history museums, like other public-supported institutions, are concerned about long-term trends in attendance and support, and a theme of global environmental changes is viewed in many quarters as a “gloom and doom” message that will alienate visitors and potential donors.

While the message behind the global environmental crisis is certainly grim, it is not hopeless. We believe that natural history museums are particularly well suited to educate the public on this issue. The central themes of ecological limits and environmental thresholds resonate throughout all of the areas of science that fall under the rubric of natural history and are central to understanding long-term changes in the abundance and distribution of biological and cultural diversity. In Utah, where we work, ecological limits and environmental thresholds are pivotal to interpreting such dramatic changes as the extinction of the dinosaurs, the precipitous decline of the Anasazi culture, and the historic transformation of plant and animal communities in the Great Basin.

Because of the disproportionate global impact of the United States politically, culturally, and environmentally, we believe it is the responsibility of natural museums in the United States, in particular, to educate the public about current rates of species extinction, habitat loss,

and global climatic change relative to the past. Decisions that we collectively make concerning patterns of resource use and family size have not only local and regional impacts but also significant global impacts, and this message needs to be clearly articulated. Thus, it is important for museums to inform the public that global environmental change is a result of cumulative impacts, and that decisions that we as individuals make on a day-to-day basis will ultimately determine the distribution and abundance of life on Earth.

Although selected groups and economic interests will almost certainly oppose the adoption of global environmental change as a central theme, natural history museums have always had to contend with controversy. To their great credit, museums have been in the forefront of educating the public about nature of science and the scientific process.

In summary, we believe that natural history museums must take a leading role in educating the public about the implications of, and solutions to, global environmental change. If natural history museums relinquish this responsibility, then museums, museum-based scientists, and museum visitors in the future will have fewer opportunities to explore and understand the natural world, and museums may ultimately become nothing more than sterile repositories of past biological and cultural diversity.

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